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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/810,211

03/26/2004

Udo Bickers

09879-00043-US

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7590

09/18/2008

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EXAMINER

BROWN, COURTNEY A

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,211

Applicant(s)

BICKERS ET AL.

Examiner

COURTNEY BROWN

Art Unit

1616

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4, 5, 7 and 10-31 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 5, 7, 10-12, 21-25 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/003)
Paper No(s)/Mail Date 3/26/2004, 11/26/2004, and 12/20/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application.
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt of Amendments/Remarks filed on May 9, 2008 is acknowledged. Claim 1-3,6,8-9 and 13-20 stand cancelled. Claims 4-5, 7 and 10-12 were amended. Claims 13-20 are withdrawn as being directed to a non-elected invention. Claims 21-31 have been added. Claims 4, 5, 7, 10-31 are pending. Claims 4, 5, 7, 10-12, and 21-31 are being examined for patentability.

Priority

Priority to German Foreign Application 10313480.8 filed on March 26, 2003 is acknowledged.

Information Disclosure Statement

Receipt of Information Disclosure Statements filed on March 26, 2004, November 26, 2004, and December 20, 2004 is acknowledged.

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

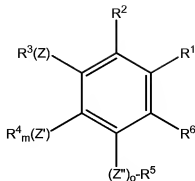
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-12 and 21-25, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Senaratna et al. (WO 99/25191) in view of Bussler et al. (US Patent 5,710,100).

Applicant's Invention

Applicant claims a method for protecting useful plants or crop plants against harmful environmental factors and phytotoxic side effects of pesticides from a group consisting of herbicides, insecticides, acaricides, nematocides, and fungicides. This method comprises applying(by a pre-emergence which is before the plant emerges from the soil and post-emergence which is after the plant emerges from the soil) as safeners or resistance inductors, an effective amount of one or more compounds of the formula I or salts thereof, before, after, or simultaneously with the agrochemicals to the plants, parts of plants, plant seed, or propagation material. Applicant also claims a method for protecting useful plants or crop plants wherein the compounds of formula I are used in the plants to induce resistance against infection by pathogens.

Formula I



***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Senaratna et al. teach a method for inducing stress tolerance (safener) in plant material comprising applying to the plant material an effective stress-regulating amount of one or more active compounds of formula (I) of the instant application wherein R^1 = carboxyl, R^2 = halogen or hydrogen, R^3 , R^4 , and R^5 = hydrogen or a loweralkyl, and R^6 = halogen or hydrogen, m, n, and o are each 1, and Z, Z'' , and Z''' are each oxygen.

Senaranta et al. teach using the active compound of formula (I) to induce tolerance to temperature, drought, freezing, heat (i.e. harmful environmental factors), and herbicide tolerance (page 6, lines 1-6).

Senaranta et al. teach (page 6, lines 12-18) that the induction of stress tolerance may be achieved by application of the active compound to plants in various stages of development such as applying to the soil habitat of the plant or directly to the plant in the seedling stage (post-emergence). Senaranta et al. disclose that seed may be imbibed in one or more of the active compounds prior to planting (pre-emergence)

(page 6, lines 12-18). Senaratna et al. also disclose that the said active compound may be applied to the plant material in conjugation with compounds such as insecticides, acaricides, nematocides, fungicides, and herbicides (page 11, lines 16-20).

Additionally, Senaranta et al. teach that the plant material to which the said compound is applied to be various forms of plant material including whole plants such as seedlings and portions thereof such as cuttings, plant tissues, fruit, flowers and seeds (page 4. lines 25-29).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Senaranta et al. is that the instant invention requires a method for protecting useful plants or crop plants against phototoxic actions of herbicides wherein the herbicides are selected from the group consisting of phenoxyphenoxy- and heteroaryloxyphenoxycarboxylic acid esters and salts, cyclohexanedione oximes, benzoylcyclohexanediones, benzoylisoaxazoles, sulfonylureas, sulfonylaminocarbonyltriazolinones and imidazolinones. For this reason, the teaching of Bussler et al. is joined. Bussler et al. teach use of certain amides of dichloroacetic acid and other compounds as safener/antidotal compounds to reduce the phytotoxicity of imidazolinone-type herbicides to crop plants, alone or in admixture with other co-herbicidal compounds (abstract).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to combine the teachings of Senaranta et al. and Walters et al. to formulate a method for protecting useful plants wherein the compounds of formula (I) are used to induce resistance against infection by pathogens. One would be motivated to combine these teachings because salicylic acid, which is in the phenolic acid family along with the compounds of formula (I) in the instant application, is suggested to induce the appearance of systemic induced resistance (SIR) in crop plants such as cucumber and tobacco (Waters et al. page 452, paragraph 2). It is known in the art that SIR is effective against a wide range of pathogens (Walters et al. page 451, paragraph 3). .

It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a third method that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven 206 USPQ 1069, 1073. Thus, combining Senaranta et al. with a with Walters et al., as claimed in the instant invention, sets forth prima facie obvious subject matter.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a method for protecting useful plants or crop plants against harmful environmental factors and phytotoxic side effects of imidazolone herbicides using the compound of formula (I). One would have been motivated to make this combination in order to receive the expected benefit of having a method of protecting the crop plant using an imidazolone herbicide from excessive weed growth as well as protecting the crop plant from the phototoxic effects of the imidazolone herbicide. "It would be prima facie obvious to combine two methods each of which is taught by the prior art to be useful for the same purpose in order to form a resultant method that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980).

Examiner's Response to Applicant's Remarks

Applicant's arguments with respect to claims 1-3, 6, and 8-9 have been considered but are moot in view of being canceled.

Applicant's arguments in reference to the rejection of claims 4-5, 7, and 10-12 filed on May 9, 2008 have been fully considered but they are not persuasive. Applicant argues that Senaratna et al. only discloses examples with benzoic acid, salicylic acid, 5-sulfosalicylic acid, acetyl salicylic acid and methyl salicylic acid which do not fall within

the scope of the compounds of formula I as recited in claim 21 of the instant application. However, the teaching of Senaratna et al. is considered as a whole. In fact, Applicant acknowledges that any of the values given for R1-R5 as taught by Senaranta et al, can be present at any of the five positions around the phenyl ring. Specifically, Senaratna et al. teach a method for inducing stress tolerance (safener) in plant material comprising applying to the plant material an effective stress-regulating amount of one or more active compounds of formula (I) of the instant application wherein R1= carboxyl, R2= halogen or hydrogen, R3, R4, and R5= hydrogen or a loweralkyl, and R6= halogen or hydrogen, m,n, and o are each 1, and Z, Z', and Z'' are each oxygen. Therefore, the Examiner has established that the claimed method of is prima facie obvious over Senaratna et al.

Conclusion

None of the claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center 1600
Group Art Unit 1616

/Mina Haghighatian/
Primary Examiner, Art Unit 1616